



WL Cube Firewall Technical Manual

VERSION 1



Technical Manual

Welcome to your new Waterlogic machine.

This Technical Manual is to help you get great tasting water cup after cup by making the most of the product's features.

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Declaration

Waterlogic International Ltd

1. The installation, maintenance and sanitizing procedures must be carried out by persons trained by Waterlogic International or their approved distributors. Do not remove any panels or covers unless acceptable in this instruction.
2. When any abnormal case happens, firstly unplug the appliance.
3. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
4. Children should be supervised to ensure that they do not play with the appliance.
5. This appliance can be used by children aged from 8 years and above if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved. Cleaning and user maintenance shall not be made by children unless they are older than 8 and supervised. Keep the appliance and its power cord out of reach of children aged less than 8 years.
6. Appliances can be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
7. Children must not play with the appliance.
8. If the supply cord or the detachable cord sets are damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified person in order to avoid a hazard.
9. The detachable hose-sets and the connection kit used to connect the main water are supplied by the technician. Don't reuse the old ones.
10. The appliance is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.
11. This appliance is intended to be used in household and similar applications such as
 - staff kitchen areas in shops, offices and other working environments;
 - farm houses and by clients in hotels, motels and other residential type environments;
 - bed and breakfast type environments;
 - catering and similar non-retail applications.
12. This appliance contains a UV-C emitter (UV lamp)
13. Unintended use of the appliance or damage to the housing may result in the escape of dangerous UV-C radiation. UV-C radiation may, even in little doses, cause harm to the eyes and skin.
14. Appliances that are obviously damaged must not be used.
15. The replacement of the UV lamp must be carried out by personnel trained by Waterlogic International or their approved distributors.
16. Read the maintenance instructions before opening the appliance.
17. The appliance must be disconnected from the power supply before replacing the UV lamp.
18. The UV lamp must be replaced at 6 month intervals or when necessary. If the unit is placed in a high use area, the UV lamp will need to be replaced more frequently. The quartz spiral can be cleaned by using an ultrasonic bath if needed.
19. **WARNING:** Do not operate the UV lamp when it is removed from the appliance enclosure.

Machine Overview

THE CUBE

The Cube is available in the following option:
a) Cold, Hot, Extra Hot and Ambient.



COLD TANK

The cold tank is manufactured from 304 Stainless Steel which is noncorrosive and inert. The temperature of the Cold Tank is controlled by a microprocessor and is set to 5°C but can be changed to 10°C or 15°C, 5°C being the ideal temperature for a cold drink and the factory default setting. The capacity of the cold tank is 1.4 liters.

HOT TANK

The hot water temperature is controlled by a Microprocessor and is set to 87°C for standard and 95°C for extra hot. A thermal cut out is fitted to the Hot Tank to prevent overheating. Setting the hot water temperature to 87°C also helps stop scale forming in the hot tank, prolonging the 500 Watt element and the hot tank. The capacity of the hot tank is 1.3 liters.

FILTERS

The filtration systems on the Cube are designed to reduce dirt and sediment particles from the water. Furthermore, the Activated Carbon process will remove a whole range of contaminants e.g. chlorine and pesticides. It is important for the UV sterilization system to be supplied with clean water in order to achieve maximum efficiency. There are many kinds of different filter combinations available from Waterlogic to suit local water conditions.

FIREWALL CHAMBER

The Firewall chamber incorporates the in-Faucet UV and is made of aluminium and is highly reflective. The Chamber houses the UV lamp and quartz spiral as well as the faucet.

IN FAUCET UV

The Unique design allows the faucet area to be sterilized before, during and after every dispense. There are two types of sensors available, the CDS Sensor and UV monitor that detects if the UV lamp is working and the UV sensor that monitors the UVC intensity from the UV lamp.

UV LAMP

The UV light is a 13 Watt germicidal lamp at a wavelength of 253.7 NM, which is very efficient at destroying bacteria in water. The UV lamp is situated in the Firewall Chamber surrounded by a quartz spiral that attains NSF standard 55 purification of water. The UV lamp must be replaced at 12 months intervals or when indicated by the warning lights, and the quartz spiral cleaned by using an ultrasonic bath if needed.

PCB

The PCB (Printed Circuit Board) is the control unit for the Cube; it is responsible for the functions of all the mechanical and electrical parts (24V DC) including the solenoid valves, touch panel and LED's.

COMPRESSOR

The compressor operates at 220-240V at 50Hz or 120V at 60Hz. It uses 55 grams/ 1.94 Oz of R134a non-Ozone depleting refrigerant gas.

WATER PIPES AND FITTINGS

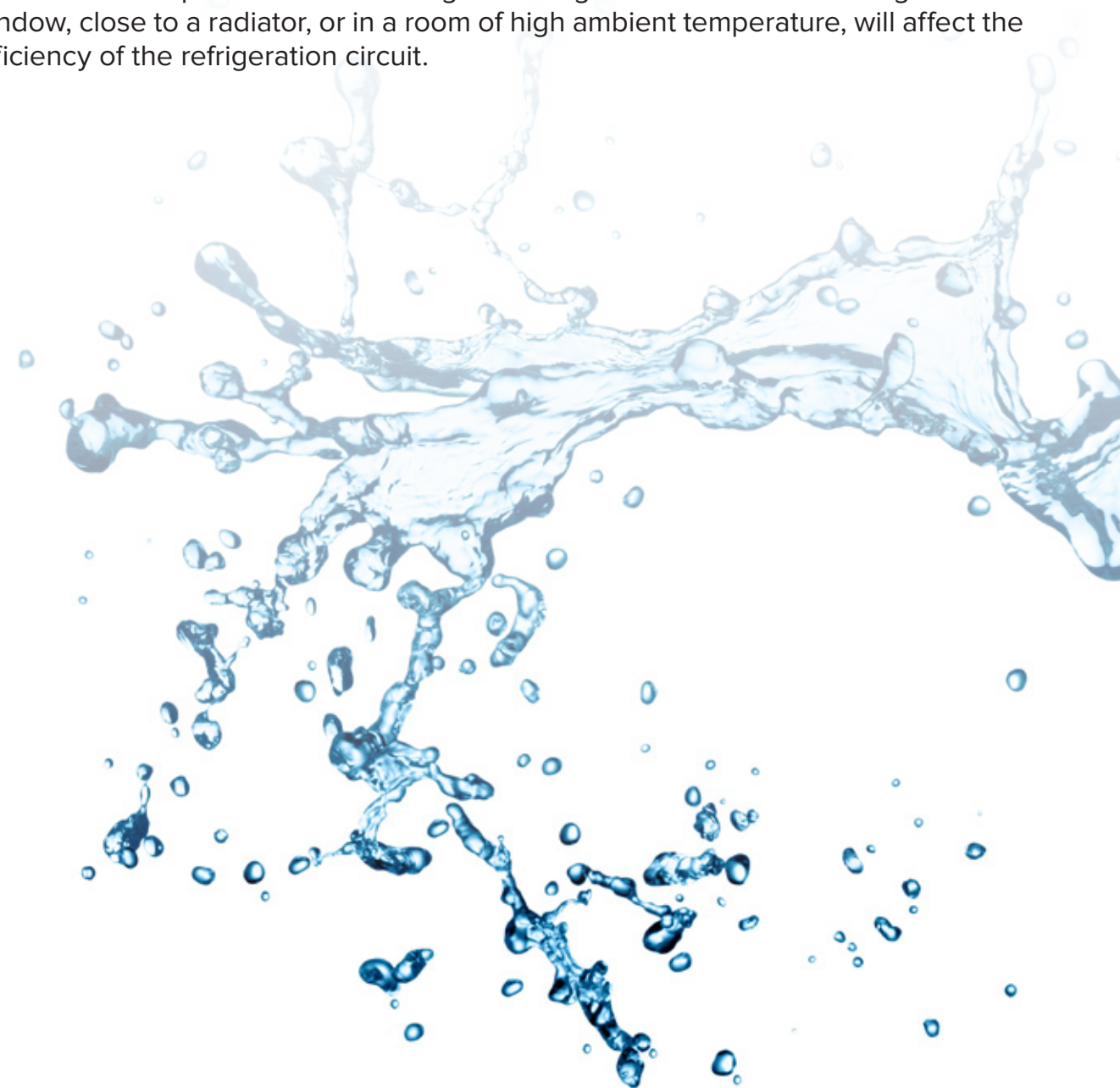
The inlet and the internal water circuit pipe size are 1/4" and 5/16". The entire internal water circuit and all the components which come in contact with water are food grade NSF approved. The cold and ambient water tubing inside the machine should not be exposed to water above 25°C.

WATER VALVES

Dispensing of water to the customer is achieved by means of a 24V DC electrical solenoid valve. The valves are energized every time the customer touches the dispense button for a drink. DC voltage is used to give a positive and quieter action of the solenoid valve.

PLASTIC PANELS

The molded panels are made from recyclable ABS plastic. All the ABS plastic panels are UV resistant and meet the standards of CE and UL. Please note that the Cube should not be exposed to direct sunlight. Placing the Cube in direct sunlight from a window, close to a radiator, or in a room of high ambient temperature, will affect the efficiency of the refrigeration circuit.



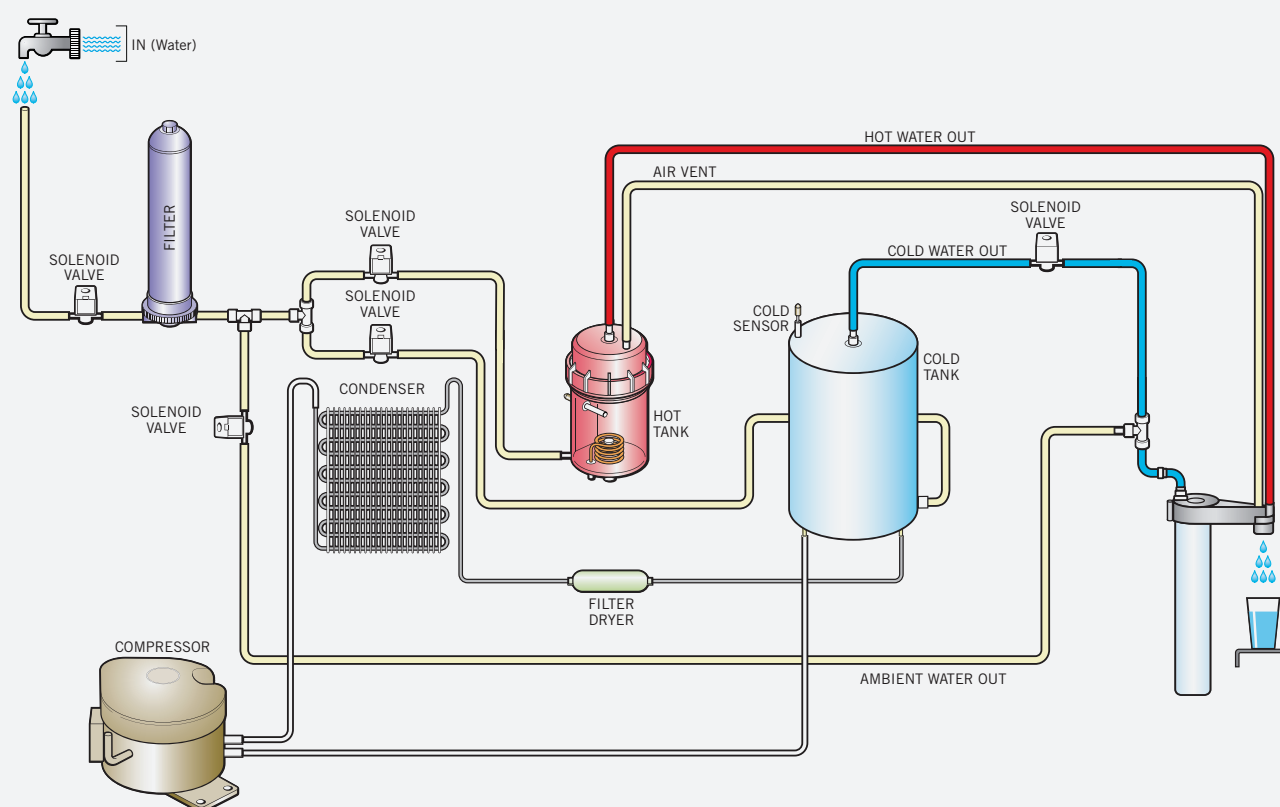
WL Cube Flow Diagram

Cold, Hot & Ambient

Pre Delivery Inspection Procedures (PDI)

CAUTION:

Only competent trained technicians should work on Waterlogic products. Waterlogic units may weigh over 25KG. We recommend caution when lifting. Packing materials could present a trip hazard. Keep them off the floor. Take care not to allow the power lead to get wet. If the lead gets wet it must not be used.



Pre Delivery Inspection Procedures (PDI)

1. Remove packing straps and unpack unit and visually inspect for any damage.
(Report any defects to Waterlogic as soon as possible).
2. Place the unit on a suitable work bench.
3. Open the top cover by removing the two screws that fix it in place.
4. Visually inspect all electrical connections and power lead.
5. Visually inspect all water connections.
6. Remove the three screws on top of the Firewall Chamber; you may need to remove some of the screws holding the top shelf in place to gain access to the Chamber. Inspect the quartz spiral for damage and re-assemble.
7. Connect to a potable drinking water supply via a 1/4" John Guest tube, the supply must be limited to 3bar.
8. Connect the power cord to an appropriate power supply and the machine.
9. Replace the top cover and re-fit the screws.
10. Note that the hot tank must be filled before any other tank.
11. Select the hot button and then the dispense button until water flows clearly, you must dispense at least 200ml of water using the hot option for the tank to begin heating the water.
12. Select the cold button and then the dispense button until water flows clearly.
13. After cold/hot has filled, turn on heater/compressor switch allow up to an hour for the unit to heat and chill. Test water temperatures and ensure the water tastes acceptable.
14. Check all of the functions of the Cube.
15. Turn off the power and water.
16. Turn unit around and drain from rear drain valves if fitted.
17. Clean and repack ready for dispatch.
18. Waterlogic recommend that all units are fully electrically (PAT) tested on site by the commissioning engineer as damage may have occurred during transit to the unit's final destination.

Installation Procedures

1. Mount the Cube on a firm, level surface so the machine cannot topple or fall over. A 50mm air gap is required the whole way around the machine to allow for sufficient ventilation. The Cube must not be installed in direct sunlight, adjacent to a heat source, or in an ambient room where the temperature is above 30°C or below 5°C.
2. It is advisable that the power and water supply be within a 2 metre range of the machine, the isolation for the water and electricity should be easily accessible. The supply of water must be from a potable source and the machine should not be installed using an extension lead.
3. Make the water connection to the Cube via a length of 1/4" flexible pipe; with the pressure reducing valve that has been supplied installed 20cm away from the machine before the connection into the back of the machine is made. This will bring the pressure down to the ideal working pressure of 3bar. Minimum operating pressure for the machine to work suitably is 2.6bar. The minimum incoming flow rate is 1.2 litres per minute. At pressures higher than 3.2bar the machine will not function correctly and this can lead to leaks. The water should be from a potable source and should be allowed to run clear of any sediment before making the connection to the Cube.
4. Check the wall socket (polarity) and then make the electrical connection to the Cube by plugging the power lead in to the socket at the rear of the machine. Then connect it to the electrical feed or wall power outlet. Turn on the power supply to the Cube.
5. Turn on the red switch at the back of the Cube, the machine will now run through a self test cycle. Once the self test cycle has completed the filter(s) will need to be flushed.
6. Select the ambient water icon and then the central dispense button and dispense 10 liters of water. This will remove excess carbon fines and sufficiently generate the filter.

7. The hot water tank now needs to be filled, this is done by selecting the hot water icon, then followed immediately by pressing and holding the main dispense button until the tank has completely filled and water is being dispensed. Flush through 5 litres of water by continuing to select the hot option. Then repeat this process again for the cold option.
8. After making sure the hot tank is full of water then turn on the green heater and compressor switch at the rear of the machine.
9. Select the hot icon, then select and hold the main dispense button immediately after selecting the hot icon.
10. Dispense at least 200ml of hot water.
11. The machine will now begin to heat / chill the water.
12. The water temperatures are pre-set at the factory to 5°C for the cold water and 87°C for the hot water.
13. The water should now be taste tested, any hint of taste in the water means the machine needs to be flushed further with an additional 10 litres and then taste tested again.
14. The Cube should be sanitized at installation.

NOTE: Should the incoming power to the Cube become interrupted users will need to follow points 8-12 for water to be dispensed. (This is machine dependent).

INSTALLATION KIT

The Cube must be installed according to the local guidelines and it is advised that an installation kit be used. A pressure reducing valve is supplied with the Cube and must be installed 20cm away from the back of the machine as part of the installation; the pressure reducing valve is set to 2.8 bar.

- The Cube should not be connected to water supplies of unknown bacterial quality or those not already fit for human consumption. The Cube should only be connected to a Potable drinking water supply.
- The filter on the Cube must be changed every 12 months.
- The UV lamp on the Cube must be changed every 12 months.
- The cold tank should also be flushed and sanitised every 12 months.
- Waterlogic International strongly recommends the use of an anti-flood device.
- Figure 1 is the recommended installation kit.

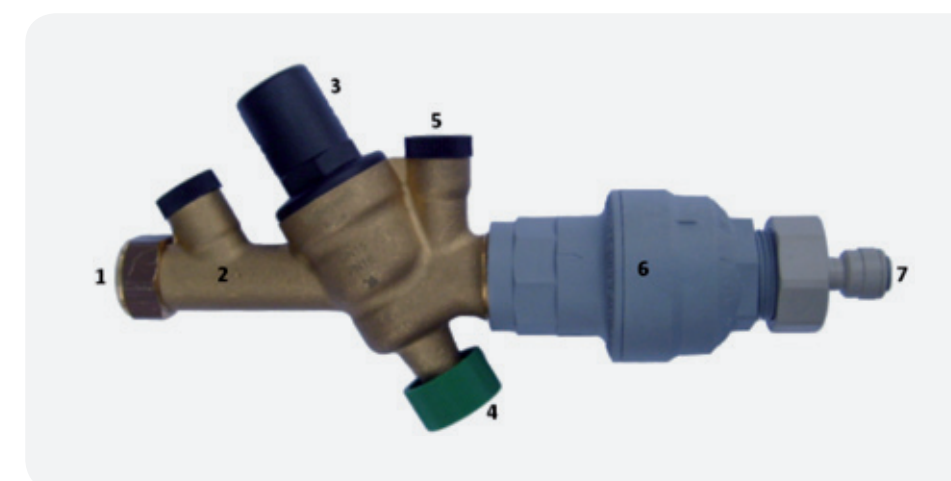


Fig 1. Waterlogic Installation Kit

- 1 - 15mm Compression Inlet
- 2 - Double Check Valve (great for carbonated water)
- 3 - Adjustable Pressure Reducing Valve
- 4 - Integral Isolator
- 5 - Pressure Gauge Port
- 6 - Waterblock
- 7 - 1/4" Pushfit Outlet

Operating Instructions

ENERGY SAVING FEATURE

The Cube has an energy saving feature that minimizes power consumption when the machine has not been operated for 3 hours. If the sleep mode on the Cube has been deactivated, the machine will automatically enter sleep mode after 72 hours of no use. The Cube can be taken out of sleep mode by touching any of the buttons. Please note the hot tank will take 10-12 minutes to reach optimum hot temperature after the machine has been taken out of sleep mode.

DISPENSING YOUR CHOICE OF WATER IS VERY SIMPLE, AS FOLLOWS:

1. Place your cup centrally in the dispensing area.
2. Select the type of water you wish to be dispensed and press/touch the corresponding icon.
3. Once the icon you have selected is illuminated, select the dispense button in the middle of the button panel.
4. Keep the dispense button depressed until your cup has reached the desired level, and then release the button.



HOT WATER CAUTION

- Always place cup / mug in the centre of the drip tray.
- Always use a ceramic cup or a cup suitable for use with hot water.
- Do not hold cup or place hands in dispensing area whilst dispensing water.
- Do not dispense water in a stop start style of vending
- (Hold the button continuously until cup is full).
- Never try to fill more than one vessel at a time.

Operating Instructions



COLD WATER

Select cold water and press dispensing button.



AMBIENT WATER

Select ambient water and press dispensing button.



HOT WATER ⚠

Press and hold the hot water icon for 3 seconds until the icon has illuminated orange, select the dispense button and hot water will be dispensed (This safety feature prevents hot water from being dispensed accidentally, especially by children).



EXTRA HOT WATER ⚠

Press and hold the extra hot water icon on the display panel, the icon will flash red to indicate that the water is heating. Once the icon turns off, the water is at the correct temperature and extra hot water can be dispensed following the same method as Hot Water.



DISPENSING BUTTON

Press and hold this icon after selecting the type of water you wish to be dispensed, when your cup has reached the desired level release the button.

Maintenance and Servicing

- The Cube must be serviced every 12 months, but we strongly recommend the UV lamp and filters be changed every six months.
- The Cube may require any calcium build up in the hot tank to be removed, this depends on the local water conditions.
- No paperwork or cleaning records should be stored inside the Cube.
- To reset the filter timer, hold down the hot and cold icons simultaneously for 10 seconds.

The items required to complete this procedure are:

- Rubber Gloves
- Phillips Screwdriver
- Replacement filter cartridge(s)
- A container that can hold 5 litres
- New 13 watt UV lamp
- Non-abrasive anti-bacterial wipe or cloth

1. Put on the rubber gloves to minimise the chance of any contamination to the machine and to protect yourself whilst the servicing procedure is being carried out.
2. You will need to stop the water supply to the machine by turning the isolation valve to the off position and releasing the pressure by selecting the cold water option until the water stops being dispensed.
3. Isolate the power to the Cube by turning the red and green power switches off, these are located at the rear of the machine. Remove the power lead as a second safety precaution.
4. Remove the top cover from the Cube by undoing the two screws located at the back of the machine, then slide the panel backwards and lift up.
5. Take out the filter by un-clicking the loop at the top of the filter housing and pulling it in an upward motion. If there are two filters in the machine then both of these need to be removed.
6. Unscrew the filter housing to expose the used filter cartridge. This cartridge can then be removed from the filter housing and replaced by a new one. Return the filter(s) into the correct position in the machine; ensuring that it is pushed firmly into place as the valves will be reopened by the insertion of the filter.
7. Remove the UV lamp by unplugging the UV loom, and pulling the lamp upwards.
8. Examine the UV loom for any discolouration or wear, if there is any visible remove the loom and replace with a new one.
9. Reconnect and replace the UV lamp assembly, making sure not to touch the new UV lamp with bare hands as this will shorten the life of the lamp.
10. Inspect all of the electrical and water connections on the machine, and take any action necessary to prevent a fault from occurring.

11. Check the faucet nipple for any calcium build up or any visible damage and clean or replace it if necessary.
12. Reassemble the machine and secure all panels with screws.
13. Check that the air gap around the machine is sufficient and there is nothing blocking the ventilation.
14. Reconnect the power to the machine and turn the red switch at the rear of the machine to the 'on' position. Turn on the water supply.
15. The filter(s) now need to be flushed. Do this by selecting the ambient water option and dispensing 10 liters of water through the machine. This will sufficiently generate the filter and remove any excess black carbon fines.
16. The green heater and compressor switch can now be turned on.
17. Select the hot icon, then select and hold the main dispense button immediately after selecting the hot icon.
18. Dispense at least 200ml of hot water.
19. The machine will now begin to heat / chill the water.
20. Clean the outside of the machine with a non-abrasive anti-bacterial wipe or cloth.
21. Taste the water one final time and check it is cooling and heating the water.

SANITISING

You will need the following items:

- A Phillips screwdriver
- Rubber gloves
- Aqua Dosa sanitisation fluid
- Suitable test strips to work with your sanitisation fluid
- Non-abrasive anti-bacterial wipe or cloth
- A container that can hold 5 litres

1. Put on the rubber gloves to minimise the chance of any contamination to the machine and to protect yourself whilst the sanitisation procedure is being carried out.
2. You will need to stop the water supply to the machine by turning the isolation valve to the off position and releasing the pressure by selecting the cold water option until the water stops being dispensed.
3. Isolate the power to the Cube by turning the red and green power switches off, these are located at the rear of the machine. Remove the power lead as a second safety precaution.

- 4.** Remove the top cover from the Cube by undoing the two screws located at the back of the machine, then slide the panel backwards and lift up.
- 5.** Take out the filter by un-clicking the loop at the top of the housing and pulling it in an upward motion. If there are two filters in the machine then both of these need to be removed.
- 6.** Unscrew the filter housing(s) and remove the filter cartridge, place this to one side as this will need to be re-fitted this once you have completed the sanitising procedure.
- 7.** Measure 40ml of Aqua Dosa sanitising fluid into one of the empty filter housings and securely fasten the filter head. Re-fit the filter(s) into the machine pushing it firmly into place.
- 8.** Replace the top cover and re-connect the power lead, then turn on the red switch at the rear of the machine. Turn the water supply back on.
- 9.** Dispense cold water until the sanitisation fluid leaves the faucet, this can be checked by dispensing cold water until the colour of the test strip has changed to indicate the presence of the sanitisation fluid (Normally about 400-500ml of water needs to be dispensed). Do not let any sanitisation fluid enter the hot tank.
- 10.** Leave the sanitisation fluid inside the machine for a minimum of 10-15 minutes, when this time has been reached, flush water through the machine until there is no sanitisation fluid left inside. You can use your test strips to check that all of the sanitisation fluid has been effectively flushed out.
- 11.** Turn off the water supply to the machine and release the internal pressure by selecting the cold option until the water stops being dispensed. Isolate the power to the machine by switching the red switch at the rear of the machine off and removing the power lead.
- 12.** Remove the top cover from the machine and take out the filter(s) and unscrew the filter housing, pour the excess water down the drain and re-fit the cartridge.
- 13.** Re-fit the filter(s) into the machine, pushing it firmly into place. Replace the top cover and re-connect the power lead, then turn on the red and green switches at the rear of the machine. Turn on the water supply.
- 14.** Select the hot icon, then select and hold the main dispense button immediately after selecting the hot icon
- 15.** Dispense at least 200ml of hot water
- 16.** The machine will now begin to heat/ chill the water
- 17.** Inspect the faucet nipple and clean or replace if it is damaged or if there any calcium built up around it.
- 18.** Using the antibacterial wipes, sufficiently clean the exterior panels of the machine, including the drip tray and grill.

DE-SCALING

You will need the following items:

- A Phillips screwdriver
- A pair of rubber gloves
- De-scale solution or powder
- A funnel or large syringe
- A container that can hold 5 litres
- Non-abrasive anti-bacterial wipe or cloth

- 1.** Put on the rubber gloves to minimise the chance of any contamination to the machine and to protect yourself whilst the de-scaling procedure is being carried out.
- 2.** Allow the machine to heat the water up to normal operating temperature, as the water inside the tank needs to be hot for the de-scaling solution to work effectively.
- 3.** You will need to stop the water supply to the machine by turning the isolation valve to the off position and releasing the pressure by selecting the cold water option until the water stops being dispensed.
- 4.** Isolate the power to the Cube by turning the red and green power switches off, these are located at the rear of the machine. Remove the power lead as a second safety precaution.
- 5.** Remove the top cover from the Cube by undoing the two screws located at the back of the machine, then slide the panel backwards and lift up.
- 6.** Take out the filter by un-clicking the loop at the top of the housing and pulling it in an upward motion. If there are two filters in the machine then both of these need to be removed.
- 7.** Unscrew the filter housing(s) and remove the filter cartridge, place this to one side as this will need to be re-fitted this once you have completed the de-scaling procedure.
- 8.** Drain 50-100ml of hot water from the machine into one of the empty filter housings, using the drainage valve at the rear of the machine. Then use this hot water from the machine to make your de-scaling solution, following the manufacturer's instructions of the descaler. Re-assemble the filter housing with the de-scale solution inside.
- 9.** Re-fit the filter(s) into the machine pushing it firmly into place. Replace the top cover and re-connect the power lead, then turn on the red switch at the rear of the machine. Turn the water supply back on.
- 10.** Place your container under the dispense area and flush through 500ml of hot water. Allow the solution to remain in the tank for 5 – 10 minutes.
- 11.** Turn off the water supply to the machine and release the internal pressure by

selecting the cold option until the water stops being dispensed. Isolate the power to the machine by switching the red switch at the rear of the machine off and removing the power lead.

12. Remove the top cover from the machine. Then take out the filter(s) and unscrew the housing, pour the excess water down the drain and re-fit the cartridge.

13. Re-fit the filter(s) into the machine pushing it firmly into place. Replace the top cover and re-connect the power lead, then turn on the red and green switches at the rear of the machine. Turn on the water supply.

14. Flush through the hot tank by dispensing water from the hot option. You will need to flush approx. 4-8 litres of water.

15. Smell and then taste the water and flush more water through the tank if needed.

16. Using the antibacterial wipes, sufficiently clean the exterior panels of the machine, including the drip tray and grill.



ADVISORY ICONS

HOT WATER

Press and hold the hot water icon for 3 seconds until the icon has illuminated orange, select the dispense button and hot water will be dispensed (This safety feature prevents hot water from being dispensed accidentally, especially by children).

DISPENSING BUTTON

Press and hold this icon after selecting the type of water you wish to be dispensed, when your cup has reached the desired level release the button.

COLD WATER

Select cold water and press dispensing button.

AMBIENT WATER

Select ambient water and press dispensing button.

EXTRA HOT WATER

Press and hold the extra hot water icon on the display panel, the icon will flash red to indicate that the water is heating. Once the icon turns off, the water is at the correct temperature and extra hot water can be dispensed following the same method as Hot Water.

UV LAMP HAS FAILED
Replace UV lamp.

FILTER SERVICE DEMAND
Replace filter cartridge.

A LEAK HAS BEEN DETECTED
Turn off the water supply and call your authorized service agent.

POWER /UV OK



FAULT FINDING

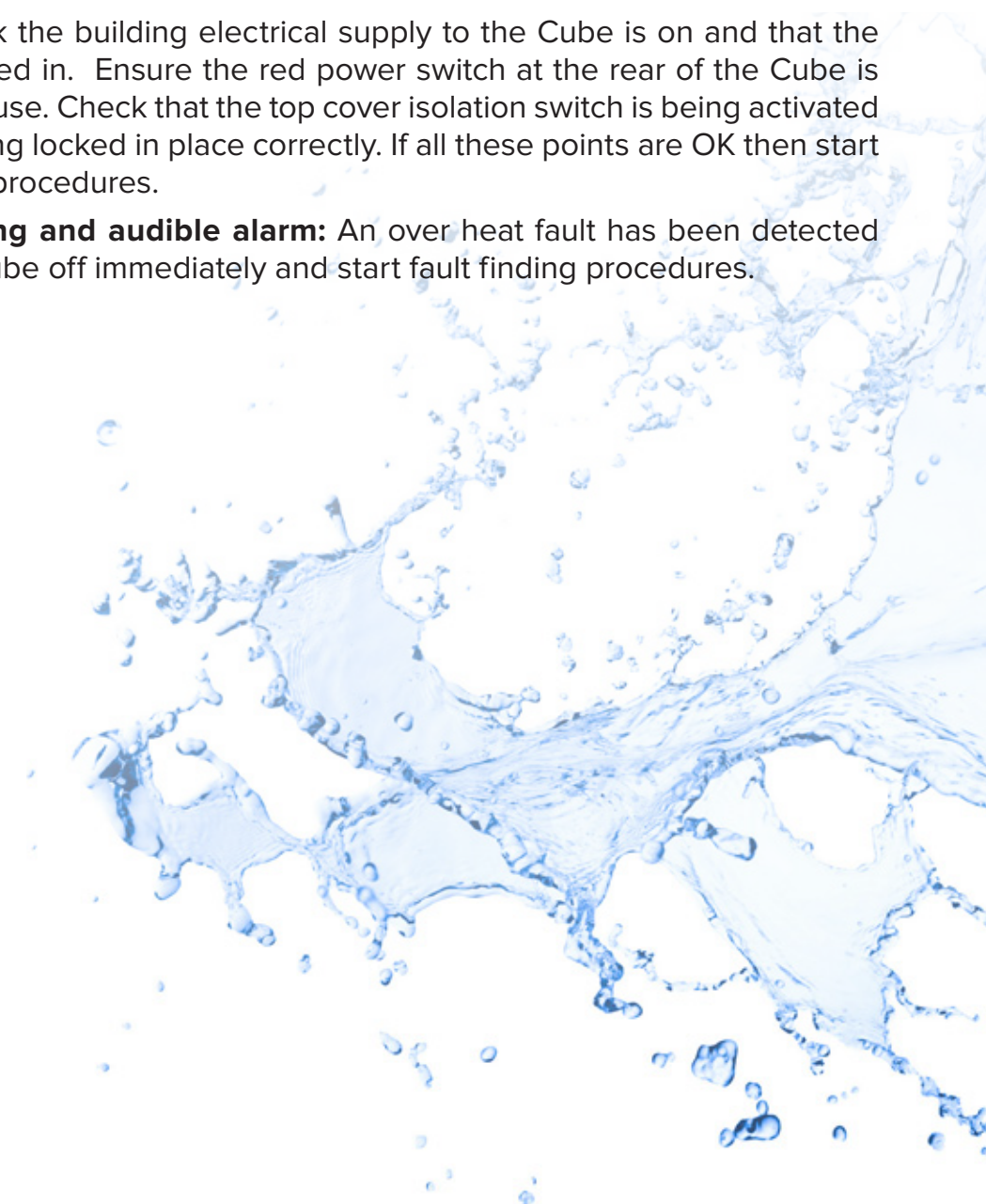
All fault finding procedures must be carried out by a technician trained by Waterlogic International or their nominated distributor. Please take great care and suitable health and safety measures when fault finding on live electrical parts.

- 1. No flow of water:** Ensure that there is a water supply to the Cube from the building and that the installation isolation valve is turned on. If the installation kit has an anti-leak device included in it (as Waterlogic Installation kit) then make sure it has not tripped.
- 2. No flow of water:** Check that the water filters are not blocked and that they are in date and are screwed home securely into the filter head. Waterlogic recommend filters are changed every 6 months. Check that the internal leak detection tray has not filled with water.
- 3. The hot water is not hot and cold water is not cold:** Make sure the green heater compressor switch is turned on.
- 4. There is hot water flow but cold water is not flowing:** This may be due to the cold water tank being frozen. If so disconnect power supply for one hour to allow the tank to defrost, and then flush the cold water system. Check the temperature settings are correct. If the cold tank is not frozen then check the solenoid valve is operating correctly and being turned on and off when you select the cold option.
- 5. There is cold water flow but hot water is not flowing:** This may be due to calcium build up in the hot tank or the hot water outlet. De-scale the hot tank. Check the hot water solenoid valve functions correctly and turns on and off when you select the hot option.
- 6. Low flow of cold water or hot water or both:** Check the building water pressure to the Cube is 45 PSI. Check the filters are not partially blocked, that the solenoid valves function correctly, hot tank calcium build up need to be de-scaled, cold tank ice buildup needs to be defrosted.
- 7. Bad or plastic taste:** If the Cube is new it may need flushing for a longer period.

8. Water leaks: Most leaks will be detected by either the internal Cube leak detection system that will trigger an alarm, or it will trip the Waterlogic block located on the installation kit. Should you see water leaking from the Cube, isolate the supply and start normal fault finding procedures.

9. No power: Check the building electrical supply to the Cube is on and that the power cord is plugged in. Ensure the red power switch at the rear of the Cube is on. Test the Cube's fuse. Check that the top cover isolation switch is being activated by the top cover being locked in place correctly. If all these points are OK then start normal fault finding procedures.

10. All Icons flashing and audible alarm: An over heat fault has been detected please switch the Cube off immediately and start fault finding procedures.



Technical Specifications and Warranties

SAFETY

Subject to the standard terms and conditions of sale (a copy of which has been provided to you), neither Waterlogic International Limited (“Waterlogic”), nor any affiliated companies shall be liable for any damage which could affect, directly or indirectly, any person or property.

Please be aware that any warranties accompanying the sale of our products will be invalidated by any of the following:

- Incorrect installation
- Incorrect use of the Cube
- Unsuitable electrical and water supply
- Major short-coming of maintenance
- Technical interventions or alterations of an unauthorised nature
- Adoption and use of unapproved spare parts
- Any repair by untrained personnel

Waterlogic has a policy of constant and continual improvement and therefore reserves the right to change specifications without prior notice, other than in the case of significant changes.

Description	Cube (120V) HCA	Cube (230V) HCA
Machine Size	296mm(W) x 425mm(D) x 375mm(H)	296mm(W) x 425mm(D) x 375mm(H)
Machine Weight	18Kg	18Kg
Power Supply	120 Volt / 60Hz	220-240 Volt / 50Hz
Heater	500W / 4.2A	500W
Fan	2W	2W
Compressor	120W / 1.7A	120W
UV Lamp	13W / 0.3A	13W
Unit Total	635W / 6.2A	635W
Refrigeration Gas R134a	55g / 1.94OZ	55g / 1.94OZ
Cold Tank Capacity	1.4L	1.4L
Hot Tank Capacity	1.3L	1.3L
Water Connection	1/4" Hose	1/4" Hose
Minimum Water Pressure Bar (Megapascal)	3.77 (0.377)	2.6 (0.26)
Maximum Water Pressure Bar (Megapascal)	6.0 (0.6)	4.14 (0.414)
Recommended Water Pressure Bar (Megapascal)	4.35 (0.435)	3.0 (0.3)
Minimum Incoming Flow Rate (litres per minute)	1.0 lpm	1.0 lpm
Dispensing Flow Rate	1.3lpm	1.3lpm
Cold Water Temperature Range	5°C - 15°C / 41°F - 59°F	5°C - 15°C / 41°F - 59°F
Hot Water Temperature Range	80°C - 95°C / 176°F - 203°F	80°C - 95°C / 176°F - 203°F

End of Life Non Eu Countries

At the end of this products life, please ensure that it is disposed of in an environmentally friendly manner which is in line with your Country requirements/guidelines.

WEEE (EU ONLY)

Please be aware that our products are covered by the Waste Electrical and Electronic (WEEE) directive (2002/96/EC). The symbol shown above denotes that the product should not be disposed of with general/household waste. Please contact your supplier/service agent who will arrange for the collection and disposal of this product.

ROHS

All Waterlogic machines comply with EC Directive (2002/95/EC) on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electrical Equipment (RoHS).

BIOCOTE® (ANTI-MICROBIAL SOLUTION)

For your added protection this product incorporates BioCote® antimicrobial technology. Silver, in the form of silver ions, is the active ingredient utilized in BioCote®. This silver technology is manufactured into the surface of our products, giving them built-in sustainable antimicrobial protection. BioCote's silver technology has been tested by an independent laboratory to show its ability to inhibit the growth of bacteria, mould and fungi by up to 99.9% over a 24 hour period and for the duration of the machine life.

FREQUENTLY ASKED QUESTIONS ABOUT BIOCOTE®:

Why use BioCote®? BioCote® will help reduce the risk of cross-contamination. You may not want to think about it, but every surface in the working environment is a potential breeding ground for Bacteria.

How is it applied? BioCote® is applied via an additive into the manufacturing process and will, therefore, be present throughout the molded or painted parts.

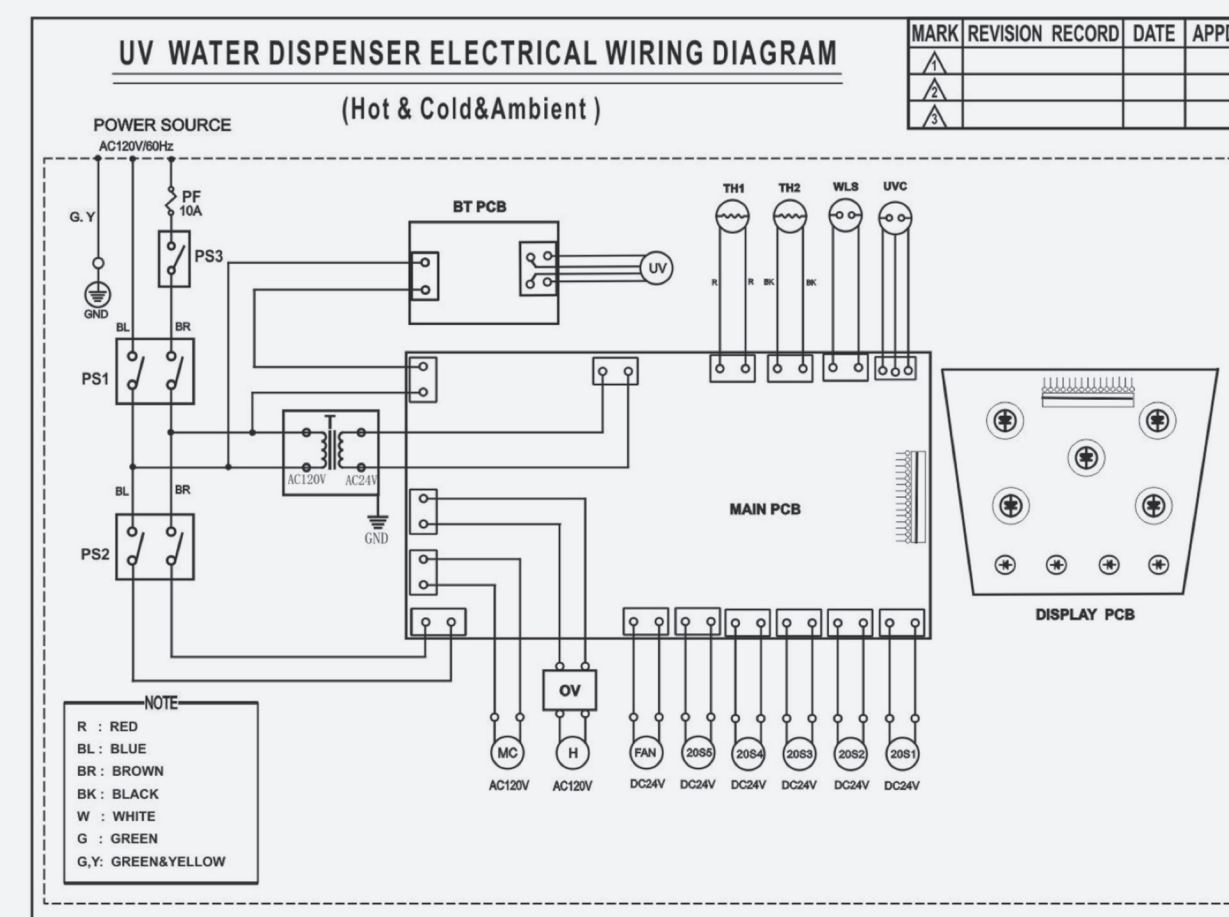
How long will BioCote® last? BioCote® will last for the usual life expectancy of your water dispenser. It will not wear or wash out with use or cleaning.

What bacteria is BioCote® effective against? BioCote® is effective against most common bacteria, moulds and fungi.

Please note:

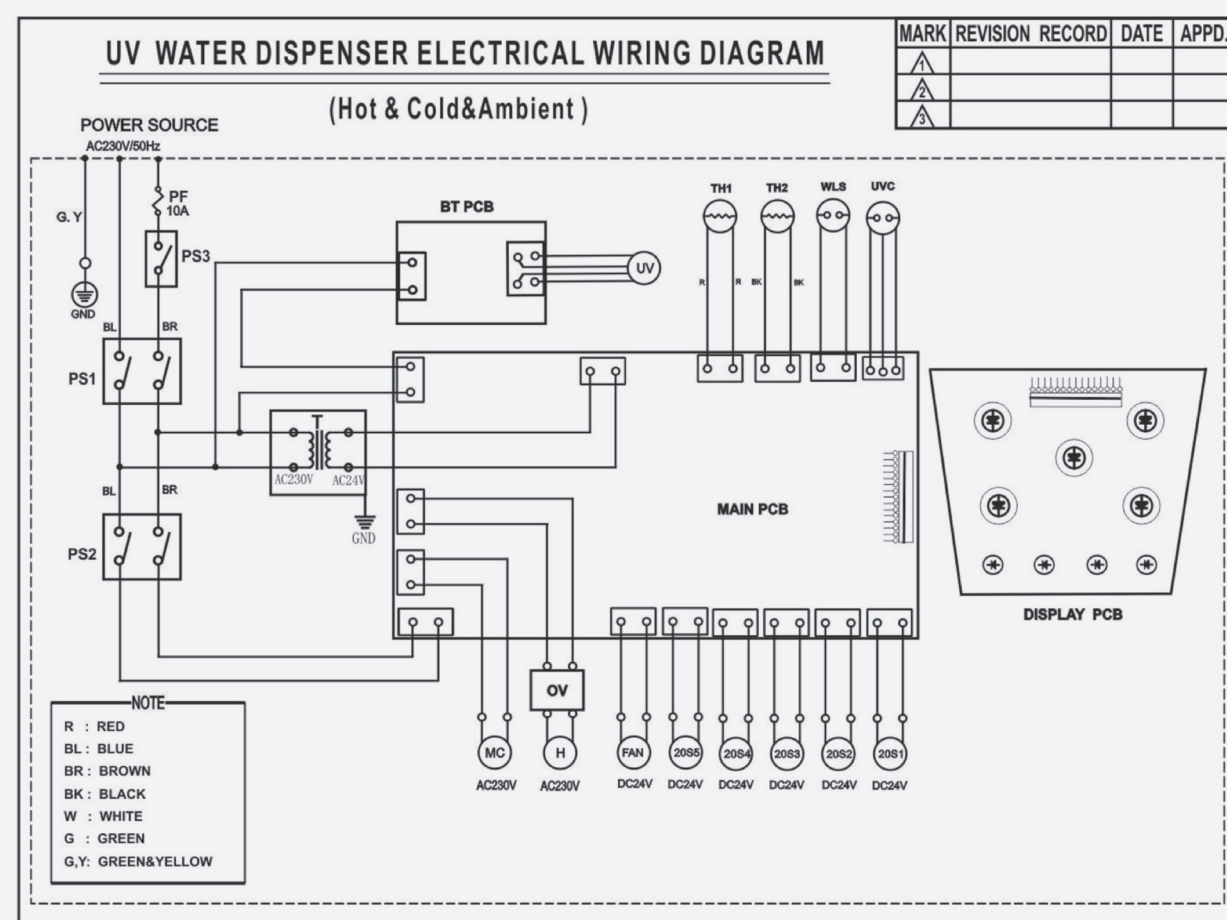
BioCote® is an additional line of defence to protect between cleaning routines, it is not a replacement for your normal cleaning and sanitisation processes.

Electrical Wiring Diagram 120V



DANGER HIGH VOLTAGES PRESENT ON THIS PCB
CARE MUST BE TAKEN WHEN LIVE TESTING

Electrical Wiring Diagram 230V



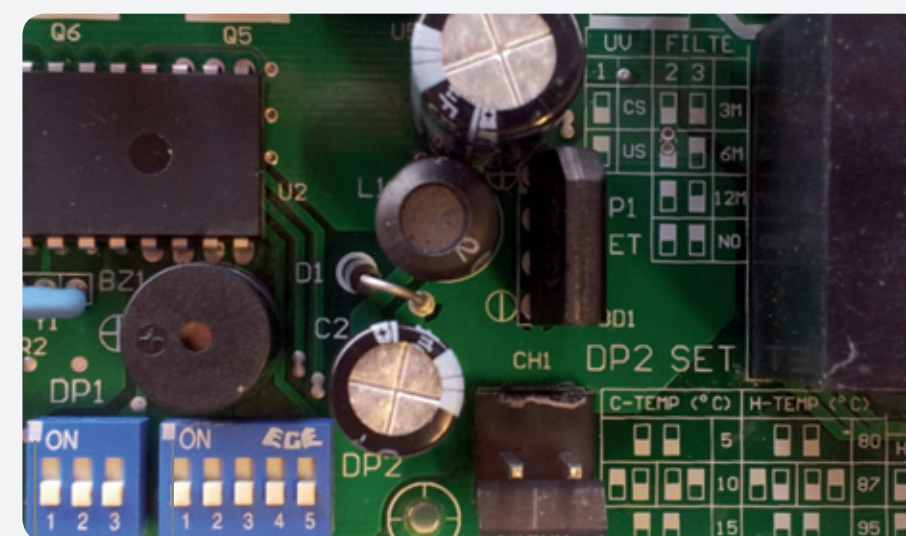
**DANGER HIGH VOLTAGES PRESENT ON THIS PCB
CARE MUST BE TAKEN WHEN LIVE TESTING**

Dip Switch Setup

THE CUBE MAIN PCB



DIP SWITCHES 1 & 2 WITH INSTRUCTIONS



Dip switch 2

Dip switch 1

Dip Switch Setup

When reading this document please note the white coloring on the diagrams indicate the required position of the switch to determine the setting.

DIP SWITCH 1 SETUP DP1



UV	1
CS	<input type="checkbox"/>
US	<input type="checkbox"/>

UV SETTING

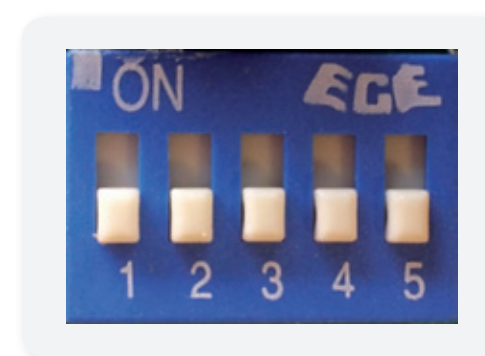
- CS = CDS Sensor (Used in Europe)
- US = UV Sensor

FILTER	2	3
3M	<input type="checkbox"/>	<input type="checkbox"/>
6M	<input type="checkbox"/>	<input type="checkbox"/>
12M	<input type="checkbox"/>	<input type="checkbox"/>
NO	<input type="checkbox"/>	<input type="checkbox"/>

FILTER TIMER SETTING

- A combination of dip switches 2 & 3 is used to enter this setup.
- 3month
 - 6month
 - 12month
 - No filter timer

DIP SWITCH 2 SETUP DP2



C-TEMP	1	2
5°C	<input type="checkbox"/>	<input type="checkbox"/>
10°C	<input type="checkbox"/>	<input type="checkbox"/>
10°C	<input type="checkbox"/>	<input type="checkbox"/>
15°C	<input type="checkbox"/>	<input type="checkbox"/>

COLD WATER TEMPERATURE SETTING

- Cold water temp range:
- 5°C
 - 10°C
 - 15°C

H-TEMP	3	4
80 °C	<input type="checkbox"/>	<input type="checkbox"/>
87 °C	<input type="checkbox"/>	<input type="checkbox"/>
87 °C	<input type="checkbox"/>	<input type="checkbox"/>
95 °C	<input type="checkbox"/>	<input type="checkbox"/>

HOT WATER TEMPERATURE SETTING

- Hot water temp range:
- 80°C
 - 87°C
 - 95°C

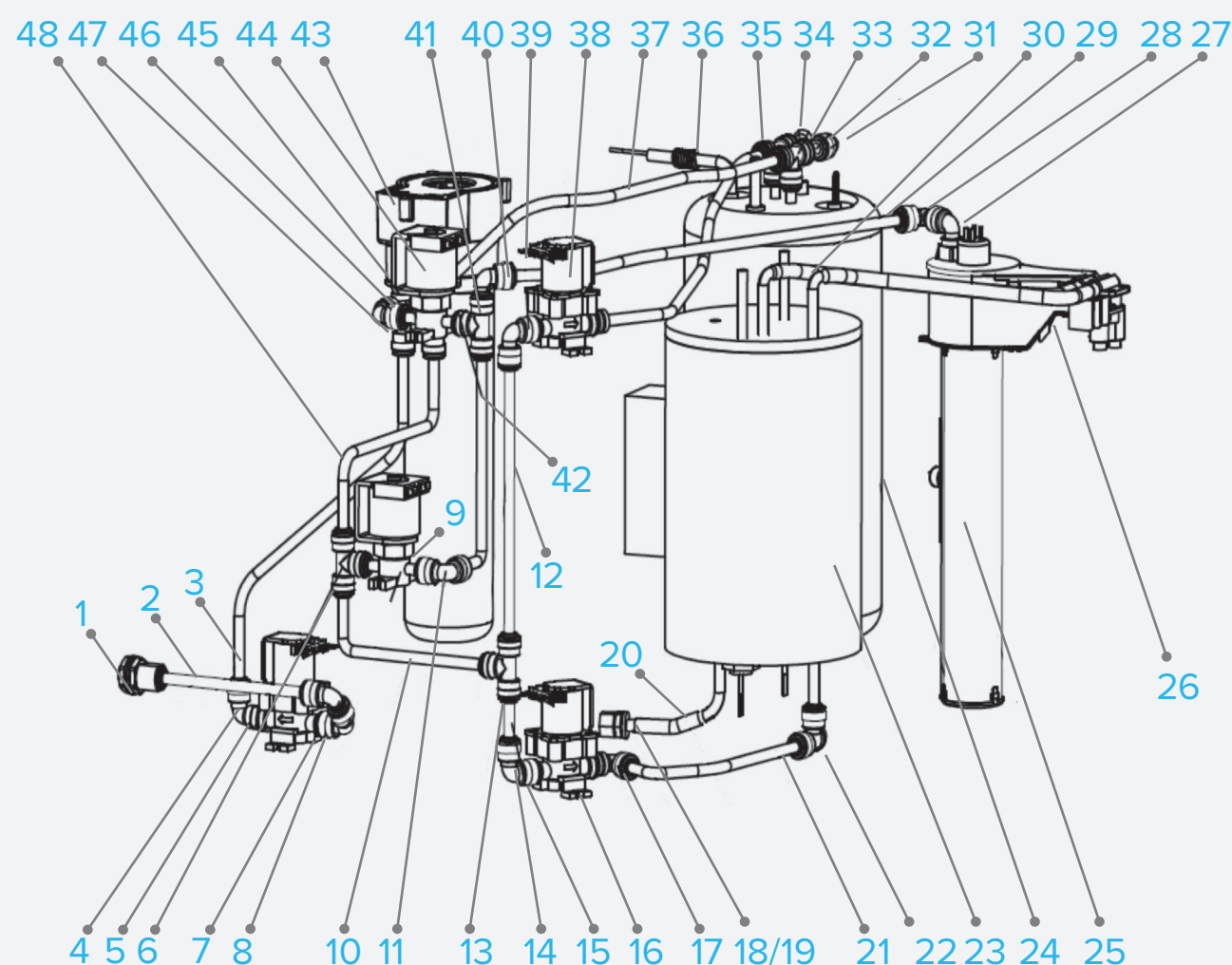
H-SLP	5
ON	<input type="checkbox"/>
OFF	<input type="checkbox"/>

SLEEP MODE

- Hot water temp range:
- ON
 - OFF

Wetted Parts List

Hot, Cold and Ambient



N°	Part Description
1	JG Bulkhead Connector Union 1/4" * 1/4"
2	JG LLD PE Tube - Blue O.D.1/4"
3	JG LLD PE Tube - Blue O.D.1/4"
4	JG Stem Elbow Connector 1/4" * 1/4"
5	Solenoid Valve 24 DC (Single Spring Load)
6	JG Equal Tee Connector 1/4"
7	JG Equal Elbow Connector 1/4"
8	JG Stem Elbow Connector 1/4" * 1/4"
9	Hot & Cold Solenoid Valve 24V- 300mm CUBE
10	JG LLD PE Tube - Blue O.D.1/4"
11	JG Equal Elbow Connector 1/4"
12	JG LLD PE Tube - Blue O.D.1/4"
13	JG Equal Tee Connector 1/4"
14	JG Equal Elbow Connector 1/4"
15	JG LLD PE Tube - Blue O.D.1/4"
16	Solenoid Valve 24 DC (Single Spring Load)
17	JG Stem Elbow Connector 1/4" * 1/4"
18	Drain valve cap only (for 5/16" & 1/4" size)
19	Drain valve body only for 5/16"
20	JG LLDPE Tube - Blue 8mm
21	JG LLD PE Tube - Blue O.D.1/4"
22	JG Equal Elbow Connector 1/4"
23	1,3 litre 500W Hot Tank for Cube
24	Cube cold tank - 1,4 Litre
25	Spiral Quartz
26	Silicon Tube 5/16" for hot water
27	JG Equal Elbow Connector 1/4"
28	JG Stem Elbow Connector 1/4" * 1/4"
29	JG LLD PE Tube - Blue O.D.1/4"

Wetted Parts List

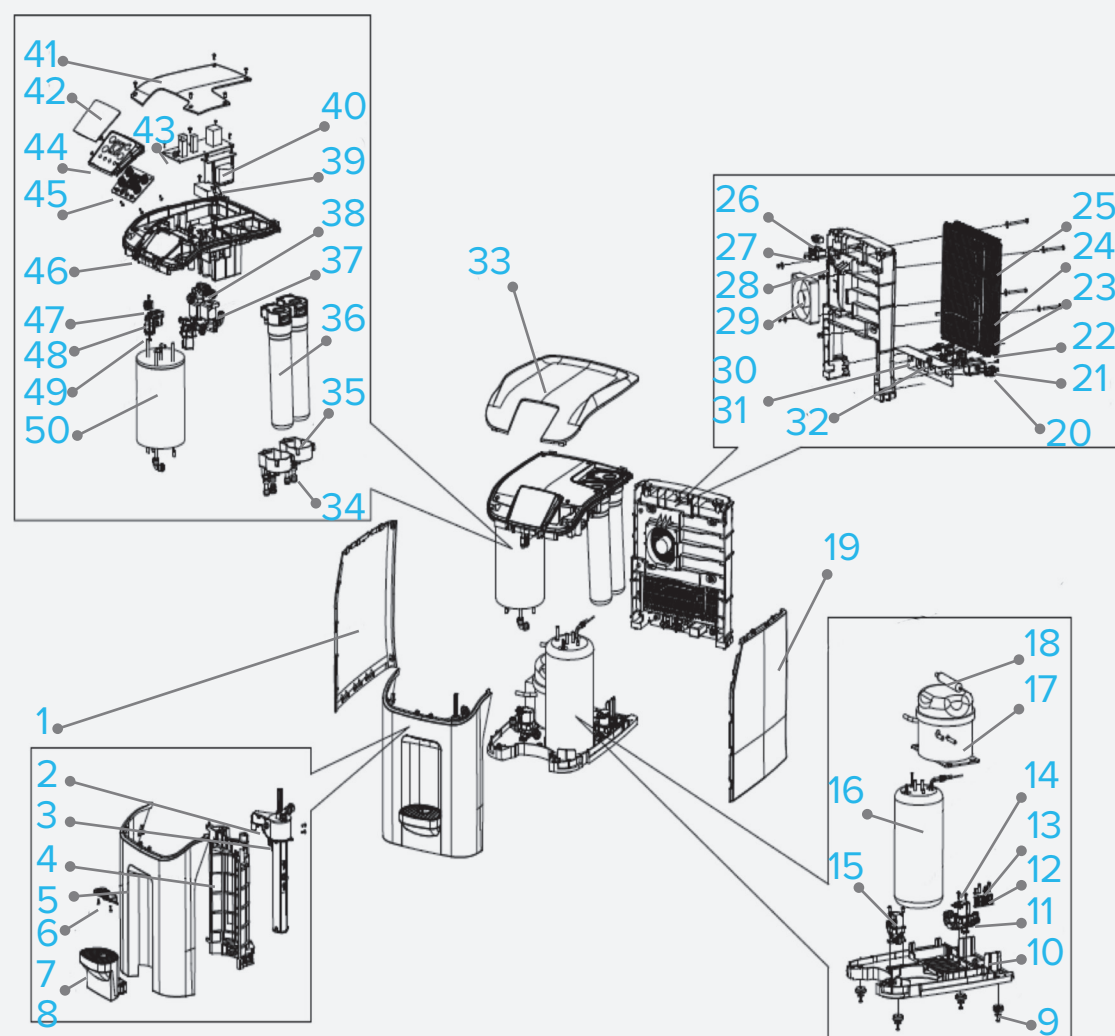
Hot, Cold and Sparkling

N°	Part Description
30	Silicon Tube 5/16" for hot water
31	JG End Stop 1/4"
32	JG LLD PE Tube - Blue O.D.1/4"
33	JG Equal Tee Connector 1/4"
34	JG 1/4" STOPPER JG UK
35	JG Equal Tee Connector 1/4"
36	JG LLD PE Tube - Blue O.D.1/4"
37	JG LLD PE Tube - Blue O.D.1/4"
38	Solenoid Valve 24 DC (Single Spring Load)
39	JG Equal Tee Connector 1/4"
40	JG Stem Elbow Connector 1/4" * 1/4"
41	JG Equal Tee Connector 1/4"
42	JG LLD PE Tube - Blue O.D.1/4"
43	CBC 1 Micron 10" Filter Ass'y-PD WL Labe
44	Hot & Cold Solenoid Valve 24V- 300mm CUBE
45	5/16-1/4 Reducing Straight Connector
46	JG Equal Elbow Connector 1/4"
47	5/16-1/4 Reducing Straight Connector
48	JG LLD PE Tube - Blue O.D.1/4"



Main Parts List

WL Cube Mains Parts Illustration



N°	Part Description
1	WL Cube Side panel left -Silver
2	Mark IV AI (Mirror/no gauze/Spout 18mm) for CUBE
3	WL Cube FW fixing bracket
4	WL Cube Front frame panel-Black
5	WL Cube Front cover -Silver
6	WL Cube Spout assembly bracket-Silver
7	WL Cube Drip tray body -Black
8	WL Cube Drip tray grill -Silver
9	Rubber feet for Cube
10	WL Cube Base plate-Black
11	1/4" Equal Elbow Connector(ST)
12	Leak Detection Sensor Bracket
13	Leak containment tray Clip (sensor 0.5mm)
14	1/4" stem Elbow connector
15	Solenoid Valve 24 DC (Single Spring Load)
16	Cube cold tank - 1,4 Litre
17	Compressor
18	Domestic Filter Dryer (Chinese)
19	WL Cube Side panel right -Silver
20	BulkHead Fitting 1/4"x 1/4"(ST)
21	Socket for Plug Connection (Domestic PST-101SL)
22	AC Power Fuse Holder with Fuse
23	Switch - Power (Red)
24	Switch - Heater/Compressor (Green)
25	Cooling Wire Condenser for Cube
26	Micro Door Lock S/W only
27	WL Cube Micro switch cover -Gray
28	WL Cube Back panel-Black
29	Fan Motor (DC 24V)
30	Drain valve body only for 5/16"

N°	Part Description
31	Drain valve cap only (for 5/16" & 1/4" size)
32	Electronic fixing Bracket WL Cube
33	WL Cube Top Cover- Black
34	5/16-1/4 Reducing Straight Connector
35	Filter Bracket
36	CBC 1 Micron 10" Filter Ass'y-PD use-WL Label
37	Hot & Cold Solenoid Valve 24V- 300mm CUBE
38	1/4" Equal Tee Connector(ST)
39	UV 15 W Electronic Ballast (Ver. 3)
40	Power Transformer
41	WL Cube Electronics cover-Black
42	WL Cube UI Label-WL Logo
43	Cube Main PCB
44	WL Cube UI PCB fixing frame -Black
45	Cube Key and Display PCB
46	WL Cube Upper shelf-Black
47	WL Cube Silicon Tubing Guide A-White
48	Silicon Tube 5/16" for hot water
49	WL Cube Silicon Tubing Guide B-White
50	1,3 liter 500W Hot Tank for Cube





Speak to a Water Expert

USA, Canada and Mexico
info@waterlogicsusa.com
+ 1 402 884 7212

Waterlogic USA,
11710 Stonegate Circle,
Omaha, NE 68164

Rest of the world
exportsales@waterlogic.com
+ 353 1 293 1960

WLI Trading Ltd.
Suite 4, 2nd Floor Beacon Court,
Sandyford, Dublin 18, Ireland
www.waterlogic.com